North Carolina Department of Agriculture

Lockout/Tagout Policy

1. Introduction

The Department Lockout/Tagout policy is intended to prevent injury, illness or property damage by providing requirement to ensure employees who are redesigning, inspecting or maintaining electrically or mechanically energized equipment have control over energy deactivation before the job is started and reactivation once the job is completed. Such jobs include work on hydraulic equipment, augers, ventilation systems, and a variety of motor-driven components and equipment. Implementation of the policy will allow the Department to comply with OSHA standard 1910.147 which became effective on October 31, 1989.

2. Scope

This policy applies to all Department of Agriculture sites and personnel including on-site contract personnel and Department inspectors of other facilities.

3. Policy

It is the policy of the North Carolina Department of Agriculture that each site shall deactivate, lockout and/or tagout all processes and powered equipment whenever they are to be worked on. Each site shall develop and implement a lockout/tagout procedure for deactivating its processes and powered equipment. The procedure shall ensure that before any work on these systems begins, all process and energy sources have been:

- Deactivated
- Secured by positive means
- Tested to ensure deactivation

4. Responsibility

Site managers are responsible for compliance with this policy. The Department Safety Office shall assist in procedure development at site management's request and shall audit site compliance.

5. Definitions

5.1 **Lockout** – The application of personal locks and danger identification tags, to de-energize electrical equipment and processes to ensure they cannot be operated until the lockout device is removed.

5.2 **Tagout** – The application of danger identification tags to de-energize powered equipment or processes and indicates the equipment being controlled may not be operated until the tagout device is removed.

5.3 **Main Identified Energy Source** – A switch or valve that controls the flow of energy to a unit. Examples include a motor control center and breaker panel switches.

5.4 **Out-of-Service Equipment** - Equipment that has been shut down for maintenance or alternations that is not being currently worked on.

6. Minimum Requirements

6.1 **Application** – This policy applies to control of energy during servicing, inspection, maintenance, installation, adjustment or cleaning of machines and equipment specifically when:

- An employee is required to remove or by pass a guard or other safety device.
- An employee is required to place any part of his or her body into an area on a machine or piece of equipment which is moving, or may move, or such close contact will pose a hazardous condition from the system process.

6.2 **Exemption** – This policy does not apply to work on cord and plug connected electrical equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the service or maintenance.

6.3 **Vehicular or Self-Contained Motorized Equipment** - Automobiles, tractors, harvest or spray equipment and other self-contained machinery which has an ignition switch may be controlled by removing the key from the ignition and kept in the possession of the employee who is working on the equipment, or by the supervisor if more than one employee is working on the equipment. Note: associated hydraulic systems must be blocked or neutralized in accordance with this policy. Removal of battery terminal wires may be necessary.

6.4 **Deactivation** – Employees must deactivate the equipment or process at the main identified energy sources (valves must be closed, breakers opened, etc.) Before an employee turns off a machine or equipment, the employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

6.5 **Lockout** - The deactivated equipment or process must be locked out. All employees working on the process or equipment shall apply their personal lock. Personal locks shall be made singularly identified (for example by painting the lock orange) and only be used for controlling energy. A special hasp may be used to facilitate lockouts and must be used when two or more locks are used to control an energy source. Lockout and tagout devices shall be affixed to each energy isolating service so that they will be in a "safe" or "off" position.

6.6 **Tagout** – When lock use is not possible or impractical, tags may be used to isolate energy sources.

6.6.1 Tagout devices shall be standardized for the Department and issued to each affected site. Only those tags will be used for tagout procedures.

6.6.2 The employee shall print his/her name, date, and time the job started on the tag.

6.7 **Testing** – Employees shall test the lockout/tagout to ensure the equipment or process has been effectively deenergized.

6.8 **Non-Electric Powered Equipment** – A positive means shall be used to prevent the inadvertent (for instance the hydraulic or pneumatic) activation of non-electrical powered equipment. A positive means includes blocking movement, opening hydraulic system bleed valves, or neutralizing to a ground position.

6.9 **Out-of –Service Equipment** – Out-of-Service equipment that is not in operating condition shall be locked or tagged out. The site shall designate a person responsible for locking or tagging out such equipment.

6.10 **Stored Energy** – Blocks or other physical restraints shall be used to ensure the immobilization of equipment and processes having stored energy. Capacitors or back-up power systems should be disconnected or discharged.

6.11 **Personnel Changes** – If another employee engages in work requiring lockout/tagout, that person shall affix his/her lock or tag the isolated power source before beginning work.

6.12 **Lock Removal**

6.12.1 **Inspection** – When work is completed, an inspection shall be made before any locks or tags may be removed. The inspection shall ensure that:

a. The job is completed.
b. All personnel are clear.
c. All tools and materials have been cleared.
d. Blocks are removed.
e. Lines are closed or open as appropriate.

6.12.2 Removal of forgotten Locks or Tags - A forgotten tag or lock may only be removed by supervision provided the following procedure is followed:

a. Verification is made that the employee is not at the facility.
b. Making all reasonable effort to inform the employee that his/her lockout/tagout device must be removed.
c. Informing the employee that "a" and "b" were attempted before he/she resumes work at the facility.
d. It is determined that it is safe to activate the equipment or process.

6.13 Outside Contractors – Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this policy, the on-site manager and outside employees shall inform each other of their respective lockout or tagout procedures. The on-site manager shall ensure his/her employees understand and comply with restrictions and prohibitions of the outside employee's energy control procedures.

6.14 Lockout/Tagout Task Identification - Site management shall develop a list of job tasks which are affected by this policy which shall be recorded in Appendix B. It is recommended a Job Safety Analysis be developed for each task to facilitate training and documentation.

6.15 Employee Training – Each employee authorized to perform lockout/tagout work shall receive training which includes:

1. Recognition of applicable hazardous energy sources, the type and magnitude of the energy and the methods for energy isolation and control.

2. All employees whose work operations are or may be in an area where energy control procedures may be used shall be instructed in the procedure and told not to attempt to restart equipment or processes when locked or tagged out.

7. Periodic Inspection

The site shall conduct an inspection of the energy control procedure at least annually to ensure the procedure and requirements of this policy are being followed and shall provide documentation sufficient to support the site's self-audit by the Department Safety Office.

Appendix A

Site Lockout/Tagout System Procedure

Site _____

General

Lockout is the preferred method of isolating machines or equipment from energy sources. To assist NCDA sites in developing a procedure which meets the requirements of the standard, the following simple procedure is provided for use in both lockout or tagout programs. This procedure may be used when there are limited number or types of machines or equipment or there is a single power source. For more complex systems, a more comprehensive procedure shall be developed, documented, and utilized.

Purpose

This procedure establishes the minimum requirements for the lockout or tagout of energy isolating devices. It shall be used to ensure that the machine or equipment are isolated from all potentially hazardous energy, and lock out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up or release of stored energy could cause injury.

Training

Appropriate employees shall be instructed in the safety significance of the lockout (or tagout) procedure. Each new or transferred affected employee, and other employees whose work operations are or may be in the area, shall be instructed in the purpose and use of the lockout or tagout procedure.

Preparation for Lockout or Tagout

Make a survey to locate and identify all isolating devices to be certain which switch(s), valve(s) or other energy isolating devices apply to the equipment to be locked or tagged out. More than one energy source (electrical, mechanical, or others) may be involved.

Sequence of Lockout or Tagout System Procedure

(1) Notify all affected employees that a lockout or tagout system is going to be utilized and the reason therefore. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards involved thereof.

(2) If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.)

(3) Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.

(4) Lockout and/or tagout the energy isolating device(s) with assigned individual lock(s) or tag(s).

(5) After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.

CAUTION: Return operating control(s) to “neutral” or “off” position after the test.

Basic rules for Using Lockout or Tagout System Procedure

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device where it is locked or tagged out.

Appendix B

Site List of Job Tasks Requiring Lockout/Tagout Procedures To Be Used

Appendix C

Site list of persons authorized to perform Lockout/Tagout procedures:

Name	Job Title	Phone Number